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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,168	02/23/2006	Wadih Arap	UTSC:857US	5612

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EXAMINER	
NATARAJAN, MEERA	
ART UNIT	PAPER NUMBER
1643	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/530,168	ARAP ET AL.	
	Examiner	Art Unit	
	Meera Natarajan	1643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2006*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-57* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Group I, claim(s) 1, 3, 4, 11-22, 56, and 57 in part, drawn to a method comprising obtaining a targeting peptide that selectively binds to prostate cancer tissue, attaching an agent to the target peptide to form a complex, and exposing the complex to a sample suspected of containing prostate cancer cells.

Group II, claim(s), 1, 3, 5-14, 17-22, 56, and 57 in part, drawn to a method comprising obtaining an antibody that selectively binds to prostate cancer tissue, attaching an agent to the antibody to form a complex, and exposing the complex to a sample suspected of containing prostate cancer cells.

Group III, claim(s) 2, 23, 47 in part, drawn to a method of administering the complex of Group I to a human subject.

Group IV, claim(s) 2, 23, 47 and 52 in part, drawn to a method of administering the complex of Group II to a human subject.

Group V, claim(s) 24-32, drawn to a composition comprising an adeno-associated phage (AAP).

Group VI, claim(s) 33-35, drawn to a method of treating a disease state comprising administering the composition of Group V.

Group VII, claim(s) 36, and 41-46 in part, drawn to an isolated peptide of 100 amino acids or less in size, comprising at least 3 contiguous amino acids of a sequence.

Group VIII, claim(s) 36, 37 and 40-46 in part, drawn to an isolated peptide of 25 amino acids or less in size, comprising at least 3 contiguous amino acids of a sequence.

Group IV, claim(s) 36, 38 and 40-46 in part, drawn to an isolated peptide of 10 amino acids or less in size, comprising at least 3 contiguous amino acids of a sequence.

Group X, claim(s) 36, 39 and 40-46 in part, drawn to an isolated peptide of 7 amino acids or less in size, comprising at least 3 contiguous amino acids of a sequence.

Group XI, claim(s) 48-50, drawn to a method of treating a lipoma in a subject.

Group XII, claim(s) 51 and 53-55, are drawn to a method comprising obtaining a peptide or protein that selectively binds to ovarian cancer tissue, attaching an agent to the peptide or protein to form a complex, and exposing the complex to a sample suspected of containing ovarian cancer cells.

2. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted. The inventions listed as Groups I-VIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Claim 1 is drawn to a method comprising obtaining a peptide or protein that selectively binds to prostate cancer tissue, attaching an agent to the peptide or protein to form a complex, and exposing the complex to a sample suspected of containing prostate cancer cells. In view of this Vielkind et al. (US Patent 6,057,116) teaches methods of obtaining a peptide or protein that selectively binds to prostate cancer tissue, attaching an agent to the peptide or protein to form a complex and compositions for detecting antigens having a specific epitope associated with melanoma and prostate carcinoma (see column 9, 1st paragraph). The epitope is present in melanoma cells and prostate cancer cells but is essentially absent from melanocytes and normal prostate tissue. Vielkind et al. teaches the antibody can be used in diagnostic methods for histochemical detection of human melanoma and prostate carcinoma, of various progression stages and in treatment of melanoma and

prostate carcinoma. Therefore the technical feature recited in claim 1 is not special. Accordingly the groups are not so linked as to form a single general concept.

3. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

- If Group I is elected applicant must elect **one** species from the following groups:

  1.) Targeting peptide amino acid sequence:

  SEQ ID NO: 5-35, 37, or 83-129

- If Group II is elected applicant must elect **one** species from the following groups:

  2.) Antibody binds to:

  a) GRP78

  b) hsp90α

  c) IL-11Rα

  3.) Antibody amino acid sequence:

  SEQ ID NO: 5, 39-67

- If Group I or II is elected applicant must elect **one** species from the following groups

  4.) Agent

  d) therapeutic agent

e) imaging agent

5.) If (a) is elected from group (3) above applicant must further elect **one** species of "therapeutic agent" from the group listed in claim 18.

6.) If "pro-apoptosis" is elected from group (4) above, applicant must further elect **one** species from the group listed in claim 19.

7.) If "anti-angiogenic" is elected from group (4) above, applicant must further elect **one** species from the group listed in claim 21.

8.) If "cytokine" is elected from group (4) above, applicant must further elect **one** species from the group listed in claim 22

- If Group V is elected applicant must elect **one** species from the following groups:

9.) Nucleic acid encodes: elect **one** from the species listed in claims 27, 28, 30, 31 and 32

- If any of Groups VII-X is elected applicant must elect **one** species from the following groups:

10.) Amino acid sequence:

SEQ ID NO: 83-129 or 132

11.) Molecule

Elect **one** species from the group listed in claim 42.

12.) Complex

Elect **one** species from the group listed in Claim 44

- If Group XI is elected applicant must elect **one** species from the following groups:

  13.) Targeting peptide sequence:

  SEQ ID NO: 72-82

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The following claim(s) are generic: 6, 7, 15, 16, 18, 19, 21, 22, 27, 30, 31, 32, 36, 40, 42, 44, 49, and 50.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: the species all differ in structure and function.

4. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are

subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder**. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

5. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meera Natarajan whose telephone number is 571-270-3058. The examiner can normally be reached on Monday-Thursday, 8:30AM-6:00PM, ALT. Friday. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Helms can be reached on 571-272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MN

LARRY R. HELMS, PH.D.
SUPERVISORY PATENT EXAMINER